

October 09, 2020

(b) (4)
Tetra Tech
415 Oak Street
Kansas City, MO 64106

RE: Project: 103X903020F0061.000 Martha Ros
Pace Project No.: 10534948

Dear (b) (4):

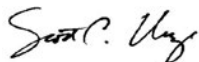
Enclosed are the analytical results for sample(s) received by the laboratory on August 18, 2020. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Minneapolis

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Scott Unze
scott.unze@pacelabs.com
1(612)607-6383
Project Manager

Enclosures

cc: Josh Mellema, Tetra Tech



REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
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CERTIFICATIONS

Project: 103X903020F0061.000 Martha Ros

Pace Project No.: 10534948

Pace Analytical Services - Minneapolis MN

1700 Elm Street SE, Minneapolis, MN 55414

A2LA Certification #: 2926.01

Alabama Certification #: 40770

Alaska Contaminated Sites Certification #: 17-009

Alaska DW Certification #: MN00064

Arizona Certification #: AZ0014

Arkansas DW Certification #: MN00064

Arkansas WW Certification #: 88-0680

California Certification #: 2929

Colorado Certification #: MN00064

Connecticut Certification #: PH-0256

EPA Region 8+Wyoming DW Certification #: via MN 027-053-137

Florida Certification #: E87605

Georgia Certification #: 959

Hawaii Certification #: MN00064

Idaho Certification #: MN00064

Illinois Certification #: 200011

Indiana Certification #: C-MN-01

Iowa Certification #: 368

Kansas Certification #: E-10167

Kentucky DW Certification #: 90062

Kentucky WW Certification #: 90062

Louisiana DEQ Certification #: AI-03086

Louisiana DW Certification #: MN00064

Maine Certification #: MN00064

Maryland Certification #: 322

Massachusetts DWP Certification #: via MN 027-053-137

Michigan Certification #: 9909

Minnesota Certification #: 027-053-137

Minnesota Dept of Ag Certification #: via MN 027-053-137

Minnesota Petrofund Certification #: 1240

Mississippi Certification #: MN00064

Missouri Certification #: 10100

Montana Certification #: CERT0092

Nebraska Certification #: NE-OS-18-06

Nevada Certification #: MN00064

New Hampshire Certification #: 2081

New Jersey Certification #: MN002

New York Certification #: 11647

North Carolina DW Certification #: 27700

North Carolina WW Certification #: 530

North Dakota Certification #: R-036

Ohio DW Certification #: 41244

Ohio VAP Certification #: CL101

Oklahoma Certification #: 9507

Oregon Primary Certification #: MN300001

Oregon Secondary Certification #: MN200001

Pennsylvania Certification #: 68-00563

Puerto Rico Certification #: MN00064

South Carolina Certification #: 74003001

Tennessee Certification #: TN02818

Texas Certification #: T104704192

Utah Certification #: MN00064

Vermont Certification #: VT-027053137

Virginia Certification #: 460163

Washington Certification #: C486

West Virginia DEP Certification #: 382

West Virginia DW Certification #: 9952 C

Wisconsin Certification #: 999407970

Wyoming UST Certification #: via A2LA 2926.01

USDA Permit #: P330-19-00208

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SAMPLE SUMMARY

Project: 103X903020F0061.000 Martha Ros

Pace Project No.: 10534948

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10528809004	IA-201-08122020	Air	08/13/20 08:20	08/18/20 09:55

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SAMPLE ANALYTE COUNT

Project: 103X903020F0061.000 Martha Ros

Pace Project No.: 10534948

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10528809004	IA-201-08122020	TO-15	CH1	6	PASI-M

PASI-M = Pace Analytical Services - Minneapolis

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ANALYTICAL RESULTS

Project: 103X903020F0061.000 Martha Ros

Pace Project No.: 10534948

Sample: IA-201-08122020 **Lab ID: 10528809004** Collected: 08/13/20 08:20 Received: 08/18/20 09:55 Matrix: Air

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR									
Analytical Method: TO-15									
Pace Analytical Services - Minneapolis									
Vinyl chloride	<0.20	ug/m3	0.52	0.20	2.01		08/21/20 17:34	75-01-4	
1,1-Dichloroethene	<0.29	ug/m3	1.6	0.29	2.01		08/21/20 17:34	75-35-4	
1,1-Dichloroethane	<0.25	ug/m3	1.7	0.25	2.01		08/21/20 17:34	75-34-3	
1,1,1-Trichloroethane	<0.27	ug/m3	2.2	0.27	2.01		08/21/20 17:34	71-55-6	
Trichloroethene	<0.35	ug/m3	1.1	0.35	2.01		08/21/20 17:34	79-01-6	
Tetrachloroethene	<0.57	ug/m3	1.4	0.57	2.01		08/21/20 17:34	127-18-4	

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QUALITY CONTROL DATA

Project: 103X903020F0061.000 Martha Ros
Pace Project No.: 10534948

QC Batch: 694221	Analysis Method: TO-15
QC Batch Method: TO-15	Analysis Description: TO15 MSV AIR Low Level
	Laboratory: Pace Analytical Services - Minneapolis

Associated Lab Samples: 10528809004

METHOD BLANK: 3710248 Matrix: Air

Associated Lab Samples: 10528809004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/m3	<0.13	1.1	0.13	08/21/20 09:39	
1,1-Dichloroethane	ug/m3	<0.13	0.82	0.13	08/21/20 09:39	
1,1-Dichloroethene	ug/m3	<0.14	0.81	0.14	08/21/20 09:39	
Tetrachloroethene	ug/m3	<0.29	0.69	0.29	08/21/20 09:39	
Trichloroethene	ug/m3	<0.18	0.55	0.18	08/21/20 09:39	
Vinyl chloride	ug/m3	<0.10	0.26	0.10	08/21/20 09:39	

LABORATORY CONTROL SAMPLE: 3710249

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/m3	57	62.2	109	70-130	
1,1-Dichloroethane	ug/m3	42.7	47.5	111	70-130	
1,1-Dichloroethene	ug/m3	41.4	43.2	104	69-137	
Tetrachloroethene	ug/m3	71	70.7	100	70-136	
Trichloroethene	ug/m3	56.3	57.2	101	70-132	
Vinyl chloride	ug/m3	26.7	30.2	113	68-141	

SAMPLE DUPLICATE: 3711316

Parameter	Units	10528809004 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,1-Trichloroethane	ug/m3	<0.27	<0.27		25	
1,1-Dichloroethane	ug/m3	<0.25	<0.25		25	
1,1-Dichloroethene	ug/m3	<0.29	<0.29		25	
Tetrachloroethene	ug/m3	<0.57	<0.57		25	
Trichloroethene	ug/m3	<0.35	<0.35		25	
Vinyl chloride	ug/m3	<0.20	<0.20		25	

SAMPLE DUPLICATE: 3711347

Parameter	Units	10528809002 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,1-Trichloroethane	ug/m3	6.4	6.3	2	25	
1,1-Dichloroethane	ug/m3	<0.18	<0.18		25	
1,1-Dichloroethene	ug/m3	<0.21	<0.21		25	
Tetrachloroethene	ug/m3	4.8	4.7	2	25	
Trichloroethene	ug/m3	74.6	74.1	1	25	
Vinyl chloride	ug/m3	<0.15	<0.15		25	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALIFIERS

Project: 103X903020F0061.000 Martha Ros

Pace Project No.: 10534948

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 103X903020F0061.000 Martha Ros

Pace Project No.: 10534948

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10528809004	IA-201-08122020	TO-15	694221		

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The Chain-of-Custody is a **LEGAL DOCUMENT**. All relevant fields must be completed accurately.

W0#: 10528809



10528809



Document Name:
Sample Condition Upon Receipt (SCUR) - Air
Document No.:
ENV-FRM-MIN4-0113 Rev.00

Document Revised: 24Mar2020
Page 1 of 1
Pace Analytical Services -
Minneapolis

Air Sample Condition
Upon Receipt

Client Name:

Project #:

WO# : 10528809

PM: SCU

Due Date: 08/25/20

CLIENT: TETRATECH-KS

Courier: ☒ Fed Ex ☐ UPS ☐ USPS ☐ Client
☐ Pace ☐ SpeedDee ☐ Commercial See Exception

Tracking Number: 1723 2544 7530

Custody Seal on Cooler/Box Present? ☐ Yes ☒ No Seals Intact? ☐ Yes ☐ No

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☒ Foam ☐ None ☐ Tin Can ☐ Other: Temp Blank rec: ☐ Yes ☒ No

Temp. (TO17 and TO13 samples only) (°C): Corrected Temp (°C):

Thermometer Used: ☐ G87A9170600254
☐ G87A9155100842

Temp should be above freezing to 6°C Correction Factor:

Date & Initials of Person Examining Contents: 8-18-20 MI

Type of ice Received ☐ Blue ☐ Wet ☒ None

Comments:

Chain of Custody Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	1.
Chain of Custody Filled Out?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	2.
Chain of Custody Relinquished?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	3.
Sampler Name and/or Signature on COC?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	5.
Short Hold Time Analysis (<72 hr)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6.
Rush Turn Around Time Requested?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7.
Sufficient Volume?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	8.
Correct Containers Used?		
(Tedlar bags not acceptable container for TO-14, TO-15 or APH)		
-Pace Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	9.
Containers Intact?		
(visual inspection/no leaks when pressurized)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	10.
Media: <input checked="" type="checkbox"/> Air Can <input type="checkbox"/> Airbag <input type="checkbox"/> Filter <input type="checkbox"/> TDT <input type="checkbox"/> Passive		11. Individually Certified Cans Y <input checked="" type="checkbox"/> N (list which samples)
Is sufficient information available to reconcile samples to the COC?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	12.
Do cans need to be pressurized?		
(DO NOT PRESSURIZE 3C or ASTM 1946!!!)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	13. <u>4 gauges attached</u>

Gauge # ☒ 10AIR26 ☐ 10AIR34 ☐ 10AIR35 ☐ 4097

Canisters					Canisters				
Sample Number	Can ID	Flow Controller	Initial Pressure	Final Pressure	Sample Number	Can ID	Flow Controller	Initial Pressure	Final Pressure
B20	2028	—	-5	+5					
B19	557	—	-2.5						
B18	3362	—	-1						
IA-201	3370	—	-10						

CLIENT NOTIFICATION/RESOLUTION

Field Data Required? ☐ Yes ☐ No

Person Contacted: _____

Date/Time: _____

Comments/Resolution: _____

Project Manager Review:

Date: 08/18/20

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Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)